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providing a power source having a controllable output voltage level, providing current to said load from said voltage power source,

connecting a current draining element in parallel with said load, and arranging: relatively fast feedback control from said load to operate said current draining element to drain over current from said load, and

relatively slow feedback control responsive to current drained by said current draining element to control said output voltage level of said power source said relatively slow feedback control working together with said relatively fast feedback control to provide current regulation of a path of said load from a path shunting said load.

- 7. A circuit arrangement for charging a capacitance comprising:
- a load capacitance to be charged,
- a serially connected inductive component contributing to a serial frequency dependent impedance,
- a variable frequency source for supplying charging current at a variable frequency, and
- a current measurement device for measuring said charging current and using said measurement to provide a feedback signal to said variable frequency source, thereby to control said variable frequency to reduce said frequency,

said variable frequency source being controllable to reduce frequency during charging of said capacitor, thereby to reduce said frequency dependent impedance and maintain a level of charging current to said load capacitance.

- 8. The circuit arrangement of claim 7, further comprising a serially connected capacitive component to contribute to said serial frequency dependent impedance.
- 9. The circuit arrangement of claim 7, wherein said variable frequency source comprises pulse width modulation.

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- 10. The circuit arrangement of claim 7, wherein said load capacitance is connected to said serial component via a rectifying bridge.
- 11. The circuit arrangement of claim 7, wherein said feedback signal is modified to stabilize said charging current at a constant level whilst said load capacitance is charging.
- 12. A method of providing constant current charging of a capacitive load comprising:

arranging said capacitive load in series with a reactive impedance comprising at least an inductive element,

providing current at a controllable supply frequency,

measuring an actual charging current of said capacitive load,

using measured changes in said charging current to control said frequency thereby to adjust said reactive impedance so as to keep said charging current substantially constant.

- 13. The method of claim 12, wherein said reactive impedance further comprises a capacitive element in series with said inductive element.
- 14. The method of claim 12, comprising arranging said capacitive load with a rectifying bridge so that said capacitive load receives substantially DC charging current irrespective of said supply frequency.